

Application of SiPM for Modern Nuclear Physics Practical Workshop

Friday, 14 October 2016 17:30 (15)

Silicon Photo-Multipliers (SiPM) are state of the art light detectors with very high single photon sensitivity and photon number resolving capability, representing a breakthrough in several fundamental and applied Science domains. So, introduction of SiPM in to the education is important process increasing the number of specialists involved in the SiPM development and application. As a result of collaborative efforts between industry and academic institutions modular set of instruments based on SiPM light sensors has been developed by CAEN s.p.a. It is developed for educational purposes mainly and allows performing a series of experiments including photon detection, gamma spectrometry, cosmic ray observation and beta and gamma ray absorption. In addition, an educational experiments based on a SiPM set-up guides students towards a comprehensive knowledge of SiPM technology while experiencing the quantum nature of light and exploring the statistical properties of the light pulses emitted by a LED. The toolbox is actually an open platform in continuous evolution thanks to the contribution of the research community and cooperation with high schools.

The work was supported by a program of the ministry of education and science of The Russian Federation for higher education establishments, project №14.578.21.0192 (RFMEFI57816X0192).

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Session Classification : Methods of experimental physics - parallel VIII

Track Classification : Methods of experimental physics